

REMARKS:

New claims 48 through 59 are presented for examination, with claims 1 - 47 having been cancelled.

First, Applicants would again thank Primary Examiner Charles Kyle and the Examiner's Supervisor Vincent Millin for taking the time to allow Applicants to interview this case.

The following is a summary of the June 26, 2006 personal interview. Primary Examiner Charles Kyle and the Examiner's Supervisor, Vincent Millin, attended the interview. For Applicants, Eric LeGoff, Kevin Lupowitz, Howard Meyerson and Attorney Barry Schindler attended the interview. During the interview, attendees presented the claims that are now being presented as Claims 48 - 59.

As well, attendees discussed the January 12, 2006 outstanding Office Action. Specifically, attendees discussed the Examiner's remarks. For example, attendees detailed how that the amended claims directly respond to the Examiner's statement, at page 13, that the **previously "claimed invention, in contrast, does not recite many of the elements argued. To facilitate prosecution, the Examiner recommends that Applicant review the specification for particular inventive concepts and amend the Claims to clearly recite these concepts"** (p. 13).

In addition, during the interview, attendees discussed the pending rejection including U.S. Patent Nos. 6,112,189 ("Rickard et al") and 5,924,082 ("Silverman2") and U.S. Patent Application Publication No. US 2003/0050888 ("Satow et al") – detailed below is a summary of that discussion. Attendees also presented and discussed the attached diagrams entitled: "Rickard: U.S. Patent No. 6,112,189"; "Silverman: U.S. Patent No. 5,924,082"; and "Liquidnet Invention."

With respect to the January 12, 2006 Office Action, the attendees discussed in detail the outstanding Office Action. For example, pages 7 -8 of the Office Action, concerning the discussion of "multiple markets" was discussed. As described, the present pending claims do not include the limitation of multiple markets and thus, (although Applicants still do not agree with the Examiner's previous discussion) multiple markets are not relied upon as a distinguishing element in the current claims.

In another example, at page 11 of the Office Action, concerning the discussion of

“automatic execution,” the present pending claims do not include this limitation, and thus, (although Applicants still do not agree with the Examiner’s previous discussion) this limitation is not relied upon as a distinguishing element in the current claims.

In another example, at page 11 of the Office Action, the Examiner stated that “the Examiner broadly and reasonably interprets an OMS as a device for managing trade orders; the Claim language requires no more. Applicant argues from the specification that the OMS are more than workstations, but this is not reflected in the Claim.” As detailed at the Interview, the pending claims more clearly reflect the scope of the claim by reciting:

wherein the order management system database is associated with a trading firm and wherein the order management system is coupled to at least one workstation utilized by the trading firm and wherein the order management system database comprises at least the following fields:

- (a) security name, symbol or identifier,
- (b) transaction type,
- (c) total order size,
- (d) quantity of the security placed elsewhere, and
- (e) quantity of the security executed.

In another example, at page 12 of the Office Action, the Examiner previously argued a hypothetical combination directed to modifying “binding” orders of Rickard and (Silverman2) into the “non-binding” indications of Silverman2. Although Applicants still do not agree with the Examiner with regard to the alleged motivation to combine, attendees detailed that, even if such references were hypothetically combined, such combination would not yield the current pending claims – see attached diagrams.

In another example, at page 12 of the Office Action, the Examiner previously argued the issue of “replacing the binding of Rickard with the expression of interest of Silverman2.” Although Applicants still do not agree, the issue of replacing the “binding” orders of Rickard with “expressions of interest” of Silverman2 is moot, since, even if the references were combined as suggested by the Examiner, the result would still not produce the currently claimed invention.

In another example, at page 13 regarding the Satow et al. reference, as detailed below, Satow et al actually teaches away from the currently claimed invention.

In another example, at page 13 regarding the issue of whether “compensation for insufficient liquidity” is the functional equivalent to “providing liquidity,” this is rendered moot because (although Applicants still do not agree with the Examiner’s discussion) general liquidity is not relied upon as a distinguishing element in the current claims.

As also detailed in the Interview and the attached diagram illustrates, Rickard et al. essentially operates “downstream” of where the present invention operates. That is, Rickard et al. relates to the matching of trades (based on degrees of satisfaction) at the electronic marketplace. See for example, Figures 11 and 14 of Rickard et al that discloses a plurality of trader workstations with a linked trader workstation and the “central matching controller” where all of these workstations feed their data -- where the “central matching controller” is downstream of the present pending claims limitations of “accessing” and “generating.”

More particularly, Rickard et al discloses that “this patent application discloses a method that a linked trader uses to enter its orders to buy or sell multiple securities simultaneously in the form of a satisfaction function.” Then at the electronic marketplace, “the data from a linked trader regarding a simultaneous trade of different securities as a group is mapped into a first function expressing degrees of satisfaction of the linked trader to trade the different securities simultaneously as a group over a desired range of costs. Next in step 133, input from other traders regarding a degree of satisfaction of each of the other traders to take a position opposite to the linked trader in at least one of the different securities as a function of price is collected in a central database. ... The composite function represents a mutual degree of satisfaction to execute a trade in all of the different securities between the linked trader and the one or more traders among the other traders. ... Finally in step 137, a trade in the different securities at the trading prices and the trading volumes identified above is executed simultaneously with the linked trader and the identified trading parties. The method then ends in step 138.” (Col. 7, lines 17-55).

Moreover, as detailed at the Interview, col. 21, lines 5 -13 of the Rickard et al, which was relied on by the Examiner (page 6 of the Office Action), discloses a database

that is at the electronic marketplace. This database is illustrated on the attached diagram as downstream from the traders.

In contrast, as detailed in the Interview, the current claims are directed to a method that is "upstream" from the electronic marketplace. This is also illustrated in the attached diagram that is labeled "Liquidnet Invention." Specifically, the claims require e.g.:

accessing, from at least one computer, all records of open orders from a database of an order management system, wherein the order management system database is associated with a trading firm and wherein the order management system is coupled to at least one workstation utilized by the trading firm and wherein the order management system database comprises at least the following fields:

- (a) security name, symbol or identifier,
- (b) transaction type,
- (c) total order size,
- (d) quantity of the security placed elsewhere, and
- (e) quantity of the security executed;

iii) sending the suitable non-binding indications to the at least one electronic marketplace;

In addition, at the Interview, the attendees discussed the commercial system of the Rickard et al patent. The assignee is OptiMark. As the following article states: "One of the most notable failures among the competitors came four years ago when OptiMark dissolved its operations after sinking more than \$200 million into the business. Critics said the system, designed to help traders execute large trades confidentially, was too complicated and trades couldn't be processed quickly enough. Despite the financial backing, OptiMark couldn't attract enough buyers and sellers to survive." ["A better hand for modest players Alfred Berkeley's Pipeline Trading Systems is an alternative stock market that intends to make money while screening its clients from predators." (31 October 2004) The Baltimore Sun] (see attached).

As also detailed in the Interview and the attached diagram illustrates, Silverman2 essentially operates "downstream" of where the present invention operates. That is,

Silverman relates to the matching of trades (based on counterparty ranking) at the electronic marketplace. See for example, Figures 1 and 2 of Silverman2 discloses a plurality of remote terminals with “matching computer” where all of these terminals feed their data — where the “matching computer” is downstream of the present pending claims limitations of “accessing” and “generating.”

More particularly, Silverman discloses “a negotiated matching system ... [where] each user enters trading information and ranking information into his or her remote terminal. The matching station then uses the trading and ranking information from each user to identify transactions between counterparties that are mutually acceptable based on the ranking information, thereby matching potential counterparties to a transaction.” (Abstract).

And, at column 7, lines 13 – 53, Silverman2 discloses “each user enters ranking information (as described below with reference to FIG. 1) ... ranking information from each user is uploaded to the matching computer 11 and stored ... the ranking information is then distributed by the matching computer 11 to intelligent nodes 17, 19, etc. where it is stored ... the users enters bids and offers including firm (non-negotiable) and soft (negotiable) parameters pertaining to the bids and offers (e.g., price, quantity, expiration terms, acceptable credit ranking) into the system using their remote terminals. Traders may enter bids and offers into the system at any time. ... the matching computer 11 uploads and stores entered bids/offers with their corresponding parameters. ... the matching computer attempts to match bids and offers entered by the users based on the parameters of the entered bids and offers and the ranking information entered by the users. ... if a match between a bid and an offer is identified, the matching computer 11 then freezes (places on hold) the bid and offer.... once the offer and bid are frozen, the system automatically signals counterparties to enable electronic communication between the two parties to the potential transaction. (col. 7, lines 12 – 55).

In contrast, similar to the discussion above for Rickard et al, the current claims are directed to a method that is “upstream” from the electronic marketplace. This is also illustrated in the attached diagram that is labeled “Liquidnet Invention.” As further discussed at the Interview, the output of the presently claimed invention (e.g. non-binding

indications generated and subsequently sent) could be sent to the Silverman2 matching computer.

Finally, as seen in Fig. 1, Satow et al again relates to a downstream process -- discloses individual broker-dealers 18 communicating with trading system 28. Trading system 28 includes a centralized database -- where the "central database" is downstream of the present pending claims limitations of "accessing" and "generating."

As described in Satow et al., the centralized database is updated as follows:

The matching engine 32 is the software component of the trading system 28 which actually performs order matches and executions. In one implementation consistent with the present invention, all of the matching logic (including anti-manipulation and other defensive schemes) is contained in the matching engine 32. When the matching engine 32 receives trade orders, it checks the database 34 for open orders to be matched (step 406), determines if a match is made (step 408) and updates the database 34 accordingly. For example, if one user 10 has placed an order to sell a certain number of shares of a specific stock, and another user 10 has placed an order to buy a certain number of shares of the same stock, and their prices match, the matching logic in the matching engine 32 registers a match (step 410). The matching engine 32 determines how many shares of that stock will change possession from the seller to the buyer. (paragraph 42) (emphasis added)

Thus, it is respectfully submitted that the rejection of the presently claimed invention based on Rickard et al, Silverman2 and Satow et al has been overcome.

Accordingly, it is respectfully submitted that each rejection raised by the Examiner in the January 12, 2006 Office Action has been overcome and that the above-identified application is now in condition for allowance.

Finally, it is noted that this Amendment is fully supported by the originally filed application and thus, no new matter has been added. For example, the recitation of the fields of the order management system is supported by e.g. Figures 4 – 6 and paragraphs 57, 59 – 62. In another example, the claims relating to "messages" are supported e.g. at paragraphs 67, 70 (and Fig. 8). In another example, the claims relating the quantity of security placed elsewhere and quantity of security executed are supported e.g. at paragraphs 59-62 (and Figs. 4-6). In another example, the updating limitation is supported e.g. at Figure 8 and paragraphs 44 and 77. In another example, the

“periodically” limitation is supported e.g. at paragraph 73 and, in the context of the specification, is given its ordinary meaning of recurring from time to time. For this reason, the Amendment should be entered.

Respectfully submitted,
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BUSINESS

A better hand for modest players Alfred Berkeley's Pipeline Trading Systems is an alternative stock market that intends to make money while screening its clients from predators.

Bill Atkinson

2605 words

31 October 2004

The Baltimore Sun

FINAL

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English

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Pipeline Chairman Alfred R. Berkeley III likens trading at the big exchanges to having to show the sharp poker players your hand before bets are placed.

NEW YORK

NEW YORK -- Less than a block from Grand Central Station, a new stock market is being born.

It doesn't employ hundreds of shouting traders, have a slick Madison Avenue advertising campaign or fancy offices.

Instead, a tangle of gray computer and phone wires hangs from the ceiling, secondhand desks abut each other and employees in the sales group, help desk, operations and marketing departments are jammed into a small white room tucked away from the bustling crowd on East 42nd Street.

"We do have a Renoir on the wall," quipped Alfred R. Berkeley III, chairman of Pipeline Trading Systems LLC, noting a cheap framed print of a painting by Pierre Auguste Renoir that hangs in a corner.

Berkeley, a former vice chairman and president of Nasdaq Stock Market Inc. and a former investment banker with Baltimore-based Alex. Brown Inc., is launching a stock market that one day may even compete with the likes of the New York Stock Exchange and Nasdaq.

It is an ambitious undertaking, especially since many of these markets, or alternative trading systems as they are more formally known, have crumbled. Those that have established themselves are locked in stiff competition. These systems, which are generally small, make money by bringing buyers and sellers together and charging a fee for every share traded.

"If you take a look at the track records of companies who have come into this space, the majority fail," said Alfred Eskandar, director of corporate strategy at Liquidnet Inc., an electronic trading firm in New York that competes with Pipeline. "There has been a ton of money thrown into this space. It doesn't even matter who you are, you really need the right model."

Berkeley believes he has the right model. He's on a twofold mission, he said: to make money and stop professional speculators and traders from taking advantage of millions of small investors and mutual fund holders. Small investors, including 92 million mutual fund investors, lose an estimated \$25 billion a year at the hands of speculators and professional traders who, according to Berkeley, game a trading system that gives them plenty of advantages.

^ Ripped off

"The real benefit we are delivering is to the citizen savers who are getting ripped off," said Berkeley, 60, as he looked out a doorway over a handful of Pipeline employees riveted to their computers. "That is the problem we are trying to solve."

Berkeley doesn't look like a crusader. Tall and lanky, he is an entrepreneur, a student of business and a self-described technology nerd who munches Altoids breath mints throughout the day. He also has a wicked sense of humor.

While attending the University of Virginia during the mid-1960s, he pulled off a prank that remained unsolved for more than 30 years. Late one night in 1965, he and some friends led a cow into a building on campus and to the dome of the university's rotunda, designed by Thomas Jefferson. At an alumni dinner in 1996, Berkeley, for the first time, admitted that he was behind the stunt.\

Air Force officer

Berkeley graduated in 1966, then earned a master's degree in business at the University of Pennsylvania's Wharton School. In 1968, Berkeley was married and commissioned in the U.S. Air Force as a captain at McGuire Air Force Base in New Jersey, which transported troops and supplies to Vietnam. It also used computers with huge amounts of memory to track 60,000 items, from missiles to T-shirts.

That's where Berkeley fell in love with computers. On weekends, he could be found "hacking around" on them, trying to see if they could do more for the military than just track supplies.

After his military stint, Berkeley joined Alex. Brown as a research analyst in 1972, and in a short time recognized the investment potential of computer software. He and another investment banker traveled the country, lugging L.L. Bean satchels crammed with paperwork and prospecting for promising technology companies.

The efforts of the team helped bring Brown millions in underwriting revenue as well as a list of clients that became among the best known in the industry: Microsoft Corp., Oracle Corp. and Computer Associates International Inc.

One thousand shares of Microsoft bought for \$21,000 in 1986 dollars -- the year Alex. Brown helped take the company public -- is worth about \$8 million today.

Berkeley was so highly regarded that he was named president of Nasdaq in 1996, beating out 136 other candidates. But the electronic stock market faced intense criticism and an investigation by the Securities and Exchange Commission.

Three months after he joined Nasdaq, the SEC issued a scathing report on Nasdaq that forced it to restructure its operation and bring in more independent directors.

Berkeley's mission was to modernize Nasdaq, keep it growing and make it fairer for small investors. He also worked to burnish its image with glitzy television spots and was involved in moving the headquarters to New York City from Washington.\

Lopsided game

Nasdaq flourished, billing itself as the "stock market for the next 100 years." But beginning in 2000, high-flying technology stocks plunged and erased trillions in investor value.

"I didn't get depressed. I didn't wring my hands," Berkeley said. "To me, we were running a business. Things got harder, volume dried up ... cash flow was down, but you are just managing a business."

While at Nasdaq, Berkeley was bothered that trading on traditional exchanges had become what he felt was a lopsided game, slanted in favor of speculators who could use technology to force investors to reveal information about their trades. He wanted to level the field so firms trading on behalf of smaller investors, such as mutual fund companies, would have a fairer chance.

"I saw this problem and I thought I could solve it," Berkeley said.

While at Nasdaq, Berkeley met Fred Federspiel, who worked at a consulting firm Nasdaq hired to study the impact of its change from quoting stocks in fractions to pennies.

Federspiel was no ordinary consultant. He holds a doctorate in experimental nuclear and particle physics and worked at the Los Alamos National Laboratory investigating whether the universe would continue to expand or eventually collapse upon itself.

Berkeley and Federspiel hit it off and teamed up in 1998 to start e-Xchange Advantage Corp., the parent company that launched Pipeline this year.

"I think we are onto something big here with Pipeline," said Federspiel, Pipeline's president. "Really, what we have done is come up with a much better mousetrap."

Pipeline isn't the typical stock exchange where buyers and sellers meet on a floor and haggle over price amid shouting and shredded orders strewn about the floor. They meet in cyberspace -- in an electronic stock market connected by computers and sophisticated software that cuts out the middleman and can save traders thousands of dollars on each trade.\

Shredded trades

What troubles Berkeley is that some traders, hedge fund operators and speculators make a living by figuring out who is trading what stock, how many shares, at what price and then buying them up before anyone else. The tactic, known as "front running," drives up the price of shares and can hurt small investors. By the time the investor who initially wanted the stock acts, the price has already risen, so he pays a premium.

These strategies by "predator" traders have forced traders to "shred," or sharply reduce the size of trades so they don't attract attention. Now, the average-size trade on the New York Stock Exchange is 400 shares, compared with more than 1,200 shares five years ago.

Berkeley, who left Nasdaq in August 2003, compares predatory traders to a dealer in a poker game who knows everyone's hand.

"You want to play?" Berkeley asked, demonstrating Pipeline's trading system to a visitor in the company's temporary offices in New York. He dealt a hand of playing cards face up. He'd bought them on an Amtrak cafe car specifically as a prop to explain his venture to another passenger.

"Let's bet. They [predatory traders] know what their hand is and they are looking at 300 people's hands and they add them up. This is the way they [small investors] are forced to play," he said.

With Pipeline, only a limited amount of information is disclosed so traders, no matter how hard they try, aren't supposed to be able to figure out the buyer, seller or exact price and number of shares involved. What is known is that someone is interested in a specified company at a certain price range.

"We are allowing him [the investor] to trade without tipping his hand, which should get him a better price," Berkeley said.

Traders who have the Pipeline software installed are alerted when there is a serious offer for the stock they are interested in. The stock's symbol on the Pipeline Block Board on their computer is highlighted in orange. Pipeline generates a price range that lets traders know that the order is reasonably priced. With a few clicks, the trader enters the number of shares -- anywhere from 25,000 to 100,000 -- and price of the stock and places an order to buy or sell.

More traders are moving to electronic networks and alternative trading systems to execute trades more cheaply and to protect themselves against predatory tactics that force them to pay more for stock. Pipeline charges 2 cents a trade per share for institutional clients and a half-cent for brokerage firms.

But price for many traders is secondary. They believe that they can save money by protecting their hand and not revealing much information.

"The real key point is you transmit very little information about who you are, how big you are, how anxious you are," said Wayne Wagner, chairman of Plexus Group, a Los Angeles-based stock market trading consultant. "It is the anonymity that really helps. That is what people are looking for. The commissions are just the tip of the iceberg."

Over the past 20 years, more than 30 alternative trading systems have been formed to offer an alternative to the NYSE and Nasdaq.

Fallout

"They are ... just really an alternative place to meet other than the floor of the exchange, and they are in competition," Wagner said.

But a number of the entrants have gone out of business, leaving about a dozen firms that typically target a particular investment audience. Some serve retail customers, others, like Pipeline, focus on large traders.

One of the most notable failures among the competitors came four years ago when OptiMark dissolved its operations after sinking more than \$200 million into the business.

Critics said the system, designed to help traders execute large trades confidentially, was too complicated and trades couldn't be processed quickly enough. Despite the financial backing, OptiMark couldn't attract enough buyers and sellers to survive.

Two of Pipeline's biggest competitors are Liquidnet and HarborsidePlus, both based in New York.

Liquidnet opened 3 1/2 years ago and trades about 25 million shares a day. It has 109 employees and opened an office in London two years ago.

"We have been very successful since the first quarter of operations," said Eskandar, Liquidnet's director of corporate strategy.

Eskandar said he sees "limitations" with Pipeline's strategy because it's never clear whether parties involved in a trade are buyers or sellers, so it may take longer to match parties and complete a trade.

"It takes a longer time to build a critical mass of liquidity," Eskandar said. "You have to hope that different people on different sides come in."

Michael S. Cashel, president and chief executive of HarborsidePlus, which employs 23 people, said one of the biggest challenges is integrating the trading system with the client's order management system and getting past bureaucratic red tape.

"If you can figure all that out, then you have a shot" at success, he said. "There are a lot of companies that have cropped up in the last few years. I don't think anybody has cracked the code yet."

Roland Park home

Like a salesman, Berkeley, who during the week lives at the Yale Club near his office in Midtown Manhattan and at his home in Roland Park on weekends, has been visiting firms across the country. In Baltimore alone, he has met with traders at T. Rowe Price Group Inc., Legg Mason Inc. and Wachovia Securities.

The system has been installed on more than 40 trading floors, including those at Fidelity Investments and T. Rowe Price. Volume has been picking up and has ranged from 1.5 million to 4.5 million shares in a day. That's a small fraction of the roughly 1.4 billion shares each traded daily on the New York Stock Exchange and Nasdaq.

"The initial signs are favorable," said Andrew M. Brooks, head of equity trading at T. Rowe Price. "This is being received as offering something unique vs. the other vendors out there. It is too early to tell whether this has staying power. Certainly the people behind it are smart people."

Said Chris Bartlett, head of equity trading at Wachovia Capital Markets in Baltimore, which plans to give Pipeline's system a test-ride: "I wouldn't bet against AI."

Berkeley, who owns about 5 percent of Pipeline's parent, insists that he isn't afraid of failure.

"If we fail, that is what free enterprise is all about. I will tell you, yes, we don't intend to fail. We are attacking a real problem and that gives me confidence."

About the exchanges: A look at what makes them different:\

Pipeline Trading Systems\ A trader uses a password to link into Pipeline, and a small Windows dialogue box appears on the computer.\ If the trader wants to trade a stock, he is alerted by Pipeline's "Block Board" that there is interest in the shares when the ticker symbol turns orange on the display.\ The trader knows only that someone is interested, but is not certain whether they are a buyer or seller. The trader clicks on the ticker to find out the price range of the shares.\ The trader places a buy order by clicking the mouse. If there is a seller, the sale is made.\

NYSE

A trader phones or wires an order to a NYSE member firm on the floor.\ The member may use a floor broker to carry the order to the "specialist" post or route it electronically to the specialist where the stock is traded.\ At the post, the specialist, acting as auctioneer, makes sure the trade is executed fairly.\ When the trade is completed, the specialist sends a confirmation to the firms that bought and sold the shares.\

NASDAQ

A trader wants to buy a stock and places a phone call to a "market maker" who may choose to fill the shares out of inventory or search electronic exchanges to see if the shares are available.\ The market maker sees quotes from various markets displayed on a computer screen. He enters the number of shares desired and maximum price he will pay, and the transaction is completed.\